Application Serial No. 09/829,461

Claims 1-30 (Cancelled).

31. (Currently Amended) A method for interfacing with a multi-level data structure comprising the steps of:

3/20/2006 8:11:27 PM

selecting a health language concept object stored in the multi-level data structure; displaying a first image in a central region of a first area, the first image comprising the selected health language concept object;

displaying one or more second images above the first image and along one or more respective geometrical rays originating from a central region of the first image, each second image comprising a health language parent concept object of the selected health language concept object;

displaying a first symbol along each respective geometrical ray originating from the central region of the first image and illustrating an association between each second image to the first image;

if the selected health language concept object has one or more child concept objects, displaying one or more third images below the first image and along one or more respective geometrical rays originating from [[a]] the central region of the first image, each third image comprising one of the child concept objects of the selected health language concept object, and displaying a second symbol along each respective geometrical ray originating from the central region of the first image and illustrating an association between each third image and the first image;

if the selected health language concept object has one or more lateral concept objects, displaying one or more fourth images along one or more respective geometrical rays originating from the central region of the first image, each fourth image comprising a lateral concept object of the selected health language concept object, and displaying a third symbol along each respective geometrical ray originating from the central region of the first image and illustrating an association between each fourth image and the first image;

positioning all second, third, and fourth images in locations around the first image such that the first image comprises a geometrical center relative to all symbols present in the first area; and

displaying an editable text list in a second area in response to objects selected in the first area, the text list comprising information relating to at least one of a selected health language concept object, parent concept object, child concept object, and a lateral concept object.

32. (Previously Presented) The method as recited in Claim 31, further comprising the steps of:

selecting a new concept object from one of the selected health language concept object, one or more parent concept objects, one or more children concept objects, and one or more lateral concept objects;

displaying a fifth image comprising the selected new concept object;

displaying one or more sixth images, each sixth image comprising a parent concept object of the selected new concept object;

displaying a fourth symbol illustrating an association between each sixth image and the fifth image;

if the selected new concept object has one or more child concept objects, displaying one or more seventh images, each seventh image comprising a child concept object of the selected new concept object, and displaying a fifth symbol illustrating an association between each seventh image and the fifth image; and

if the selected new concept object has one or more lateral concept objects, displaying one or more eighth images, each eighth image comprising a lateral concept object of the selected new concept object, and displaying a sixth symbol illustrating an association between each eight image and the fifth image.

- 33. (Previously Presented) The method as recited in claim 31 wherein the first, second, third and fourth images comprise text strings.
- 34. (Previously Presented) The method as recited in claim 31 wherein the first image is highlighted.
- 35. (Previously Presented) The method as recited in claim 31 wherein the first, second, third and fourth images, and the first, second and third symbols are displayed within a first viewing area.
- 36. (Previously Presented) The method as recited in claim 35 further comprising the step of displaying one or more attributes of the selected concept object.

- 37. (Previously Presented) The method as recited in claim 36 further comprising the step of displaying one or more details of the selected concept object.
- 38. (Previously Presented) The method as recited in claim 37 further comprising the step of displaying one or more terms associated with the selected concept object.
- 39. (Previously Presented) The method as recited in claim 38 further comprising the step of displaying a work area for temporarily storing terms.
- 40. (Previously Presented) The method as recited in claim 35 further comprising the steps of:

selecting either a microglossary panel, a term facet panel, a relations facet panel or a term phrase editor panel; and

displaying the selected panel in a second viewing area.

41. (Previously Presented) A computer readable medium having computer executable instructions for performing the steps recited in Claim 31.

Application Serial No. 09/829,461

42. (Currently Amended) A system for interfacing with a multi-level data structure comprising:

a computer;

a display communicably connected to the computer;

a memory communicably connected to the computer for storing the multi-level data structure;

a computer program resident on the computer for:

selecting a health language concept object stored in the multi-level data structure,

displaying a first image in a first window comprising an alphanumeric string representing the selected health language concept object on the display,

displaying one or more second images on the display and along one or more respective geometrical rays originating from a central region of the first image, each second image comprising an alphanumeric string representing a parent concept object of the selected health language concept object and displaying a first symbol on the display along each respective geometrical ray originating from the central region of the first image and illustrating an association between each second image and the first image,

if the selected health language concept object has one or more child concept objects, displaying one or more third images on the display and along one or more respective geometrical rays originating from [[a]] the central region of the first image, each third image comprising an alphanumeric string representing a child concept object of the selected health language concept object and displaying a second symbol on the display along each respective geometrical ray originating from the central region of the first image and illustrating an association between each third image and the first image,

if the selected health language concept object has one or more lateral concept objects, displaying one or more fourth images on the display and along one or more respective geometrical rays originating from a central region of the first image, each fourth image comprising an alphanumeric string representing a lateral concept object of the selected health language concept object and displaying a third symbol on the display along each respective geometrical ray originating from the central region of the first image and illustrating an association between each fourth image and the first image;

Application Serial No. 09/829,461

positioning all second, third, and fourth images in locations around the first image such that the first image comprises a geometrical center in the first window relative to all symbols on the display;

displaying an editable text list in a second window in response to objects selected in the first window, the text list comprising information relating to at least one of a selected health language concept object, parent concept object, child concept object, and a lateral concept object; and

receiving input for one of modifying, removing, and creating relationships between concept objects.

43. (Previously Presented) The system as recited in Claim 42 wherein the computer program:

selects a new concept object from one of the selected health language concept object, the one or more parent concept objects, one or more children concept objects, and one or more lateral concept objects;

displays a fifth image on the display comprising the selected new concept object; displays one or more sixth images on the display, each sixth image comprising a parent concept object of the selected new concept object;

displays a fourth symbol on the display illustrating an association between each sixth image and the fifth image;

if the selected new concept object has one or more child concept objects, displays one or more seventh images on the display, each seventh image comprising a child concept object of the selected new concept object, and displays a fifth symbol on the display illustrating an association between each seventh image and the fifth image; and

if the selected new concept object has one or more lateral concept objects, displays one or more eighth image comprising a lateral concept object of the selected new concept object, and displays a sixth symbol on the display illustrating an association between each eighth image and the fifth image.

44. (Previously Presented) The system as recited in Claim 42 wherein the first, second, third and fourth images comprise text strings and wherein the first image is highlighted.

- 45. (Previously Presented) The system as recited in Claim 42 wherein the computer program displays the first, second, third and fourth images, and the first, second and third symbols within a first viewing area on the display.
- 46. (Previously Presented) The system as recited in Claim 45 wherein the computer program displays one or more attributes of the selected concept object in a second viewing area on the display wherein the attributes comprise at least one of a billing code and a medical code.
- 47. (Previously Presented) The system as recited in Claim 46 wherein the computer program displays one or more attributes of the selected concept object in a third viewing area on the display wherein the attributes comprise at least one of a billing code and a medical code.
- 48. (Previously Presented) The system as recited in Claim 47 wherein the computer program displays one or more terms associated with the selected concept object in a fourth viewing area on the display.
- 49. (Previously Presented) The system as recited in Claim 48 wherein the computer program displays a work area for temporarily storing terms in a fifth viewing area on the display.
- 50. (Previously Presented) The system as recited in Claim 42 wherein the computer program:

selects either a microglossary panel, a term facet panel, a relations facet panel or a term phrase editor panel; and

displays the selected panel in a second viewing area on the display.

Claims 51-60 (Cancelled).

61. (Currently Amended) A method for interfacing with a multi-level data structure comprising the steps of:

selecting a medical concept object stored in the multi-level data structure;

displaying a first image comprising the selected medical concept object in a first region;

displaying one or more second images, each second image comprising a parent medical concept object of the selected medical concept object;

displaying a first graphical element representing an association between each second image to the first image;

if the selected medical concept object has one or more child medical concept objects, displaying one or more third images along one or more respective geometrical rays originating from a central region of the first image, each third image comprising one of the child medical concept objects of the selected medical concept object, and displaying a second graphical element along each respective geometrical ray originating from the central region of the first image and representing an association between each third image and the first image;

if the selected concept object has one or more lateral medical concept objects, displaying one or more fourth images along one or more respective geometrical rays originating from [[a]] the central region of the first image, each fourth image comprising a lateral medical concept object of the selected concept object, and displaying a third graphical element along each respective geometrical ray originating from the central region of the first image and representing an association between each fourth image and the first image;

positioning all second, third, and fourth images in locations around the first image such that the first image comprises a geometrical center relative to all graphical elements present in the first region;

displaying an editable text list in a second region in response to objects selected in the first region, the text list comprising information relating to at least one of a selected medical concept object, parent medical concept object, child medical concept object, and a lateral medical concept object; and

receiving input for one of:

modifying a relationship between two or more medical concept objects; removing a relationship between two or more medical concept objects; creating a relationship between two or more medical concept objects; and creating new medical concept objects.

Application Serial No. 09/829,461

- 62. (Previously Presented) The method of Claim 61, wherein the selected medical concept comprises a medical term from one of International Statistical Classification of Disease and Related Health Problems (ICD), systemized nomenclature medical reference terminology (SNOMED RT), and MeSH.
- 63. (Previously Presented) The method of Claim 61, further comprising displaying a billing code from a medical database associated with the selected medical concept.
- 64. (Previously Presented) The method of Claim 61, further comprising displaying a medical code from a medical database associated with the selected medical concept.
- 65. (Previously Presented) The method of Claim 61, further comprising displaying a medical procedure associated with the selected medical concept.

66. (Currently Amended) A method for interfacing with a multi-level data structure comprising:

receiving a selection of a first health language concept;

in response to receiving the selection, displaying a first concept object in a central region of a first area, the first concept object corresponding to the selected first health language concept;

displaying one or more second health language concept objects in a radial manner relative to the first health language concept object such that the one or more other second health language concept objects are positioned outside and around [[the]] a central region occupied by the first health language concept object along one or more respective visible geometrical rays originating from the central region of the first image, the first health language concept object comprising a geometrical center for all visible geometrical rays;

displaying an editable text list in a second area in response to objects selected in the first area, the text list comprising information relating to at least one of a selected first health language concept object and second health language concept object; and

receiving input for one of:

modifying a relationship between two or more health language concept objects;

creating a relationship between two or more health language concepts objects;

removing a relationship between two or more health language concept objects; and

creating a new health language concept object.

67. (Previously Presented) The method of Claim 66, further comprising:

in response to a selection of the health language concept objects, displaying additional information corresponding to the health language concept objects.

- 68. (Previously Presented) The method of Claim 66, wherein the first health language concept object is part of a first nomenclature and the one or more second health language concept objects are part of one or more second nomenclatures.
- 69. (Previously Presented) The method of Claim 66, further comprising displaying windows adjacent to the area for receiving input of at least one of modifying, creating, and removing a relationship between two or more health language concept objects.
- 70. (Previously Presented) The method of Claim 69, further comprising displaying the one or more of the new concept objects in a radial manner relative to the first health language concept object.
- 71. (Previously Presented) The method of Claim 66, further comprising displaying one or more panels comprising work space adjacent to the area and for manipulating the health language concept objects.
- 72. (Previously Presented) The method of Claim 66, allowing each health language concept object to be dragged to another portion of the area for modifying the dragged health language concept object.
- 73. (Previously Presented) The method of Claim 66, in response to a selection of the one or more second health language concept objects, changing the selected second health language concept to the first concept object and re-displaying a new set of second health language concept objects.

Sent by: Steven P. Wigmore 770-234-5962 3/20/2006 8:20:02 PM Page 17 of 38

Application Serial No. 09/829,461

74.-78. (Cancelled).